UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,218	05/25/2001	Takayuki Tomita	14651	2614

23389 7590 09/07/2004

SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
GARDEN CITY, NY 11530

EXAMINER	
AHN, SAM K	

ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/865,218	TOMITA ET AL.	
	Examiner	Art Unit	
	Sam K. Ahn	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *pre-amdt, received on 5/25/01*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11003,11504*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed on 1/10/03 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each ~~U.S. and~~ foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

2. Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 1-5 are objected to because of the following informalities:

   In claim 1, line 2, delete "RAKE" and insert "the RAKE".

In claim 2, lines 2 and 3, respectively, delete "said" and insert "said multiple".

In claim 2, line 6, recites "said timings" which appears to be referring to "a timing" recited in line 2. Please amend to avoid lack of antecedent basis for this limitation.

In claim 2, lines 10-11, delete "a unit length of inverse spread data" and insert "said inverse spread data of said unit length".

In claim 3, line 2, delete "a timing" and insert "said timing".

In claim 4, line 2, delete "inverse" and insert "said inverse".

In claim 4, line 4, delete "completed" and insert "stored in said memory circuit".

In claim 5, line 4, delete "a predetermined" and insert "said predetermined".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, line 6 recites "--- *a timing* when said inverse spread data output flag is input ---" while claim 2, line 2 recites "--- synchronism with *a timing* ---"

It appears that the timing recited in the claims are referring to two different timings while reciting using a common terminology.

Claim 5 directly depends on claim 4.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Kameno et al. USP 6,282,234 B1 (Kameno).

Regarding claim 1, Kameno discloses a spectrum spread receiver (see Figs.3 and 4), in which, when conducting synthesis of inverse spread data generated based on received data, RAKE synthesis (19) is executed by performing a predetermined timing adjustment (see Fig.6B and note col.7, line 58 – col.8 line 24 wherein the buffer holds the data for each path by a predetermined amount to align the data from each path) after the inverse spread data having a plurality of symbols are first stored in a memory circuit (31 in Fig.4).

Regarding claim 2, Kameno discloses a spectrum spread receiver, in which received data from multiple paths are correlatively processed to be in synchronism with a timing corresponding to each of said paths, and a correlative output signal of each of said paths is synthesized by RAKE synthesis, (see Figs. 3 and 4) comprising: a plurality of finger processing circuits (14-1,14-2,14-3) for generating inverse spread data in accordance with said timing (from 13); a memory circuit (31 in Fig.4) for storing said inverse spread data of a unit length (0 to 8 in Fig.5); a timing adjustment circuit (32-34) for outputting a timing signal (output by 34) when a predetermined amount of inverse spread data (path data 1-3) is stored in said memory circuit (31); and a RAKE synthesizer (19) for performing the RAKE synthesis by reading the inverse spread data of the unit length from said memory circuit based on the timing signal (output by 34) output from said timing adjustment circuit (32-34). (note col.6, line 1 – col.8, line 24)

Regarding claim 3, Kameno teaches all subject matter claimed, as applied to claim 2. Kameno further teaches wherein said timing adjustment circuit outputs a timing signal for performing the RAKE, synthesis when a predetermined amount of inverse spread data is stored in said memory circuit. (note col.6, line 1 – col.8, line 24)

Regarding claim 4, Kameno teaches all subject matter claimed, as applied to claim 2. Kameno further teaches wherein each of said finger processing

circuits (see Fig.4) generates and outputs inverse spread data and an inverse spread data output flag whenever a predetermined length of inverse spread data is completed by storing in said memory circuits (note col.6, line 1 – col.8, line 24); and said timing adjustment circuit writes said inverse spread data in said memory circuit at a timing when said inverse spread data output flag is input (Timing signal 1-3), by referring to said inverse spread data output flag generated and output from each of said finger processing circuits, when each of said finger processing circuits has a different processing timing. (note col.6, line 1 – col.8, line 24)

Allowable Subject Matter

6. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims, and overcome the claim objections.
7. The following is a statement of reasons for the indication of allowable subject matter: Present application discloses a rake receiver receiving spread spectrum signal wherein the plurality of processing circuits provide data and flags to the timing adjustment circuit to control the different timings of signal received and processed by each of the plurality of processing circuits. The memory circuit receives and stores the data received from the plurality of processing circuits. Closest prior art, Kameno teaches all subject matter claimed. However, Kameno does not teach wherein the address generated

at the time when said inverse spread data is written is determined by a finger number, a symbol number and a variable value as recited in the claim.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takakusaki teaches a spread spectrum receiver comprising plurality of finger circuits and a combiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jay Patel**, can be reached at **(703) 308-7728**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
8/30/04

YOUNG T. TSE
PRIMARY EXAMINER